

DEVELOPMENT OF MILESTONE SCHEDULES FOR SELECTED
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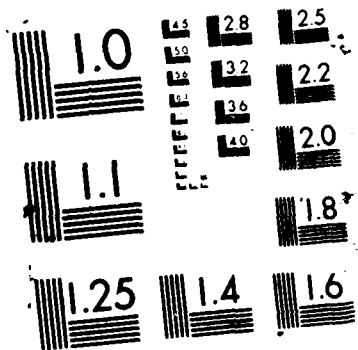
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Figure 1 displays a 3x12 grid of 36 grayscale images. The images are arranged in three rows and twelve columns. The first row shows a clear, sharp handwritten digit '4'. As we move from left to right across the first row, the digit becomes increasingly blurred and distorted. The second row shows the digit '4' becoming even more blurred and distorted, with some parts appearing to be cut off or missing. The third row shows the digit '4' as a very faint, blurry shape, with most of the original structure lost. This visualizes the concept of a 'distance' or 'distortion' between the original image and the distorted versions, where the distance increases as the image becomes more distorted.



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DEVELOPMENT OF MILESTONE SCHEDULES
FOR
SELECTED LOGISTICS SUPPORT DIRECTORATE PROGRAMS

APPENDIX D
DATA BASE USER'S MANUAL



Science Applications International Corporation

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15 SEPTEMBER 1987

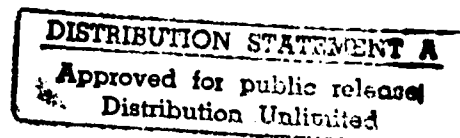
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Prepared for:
US Army
Belvoir Research, Development and Engineering Center

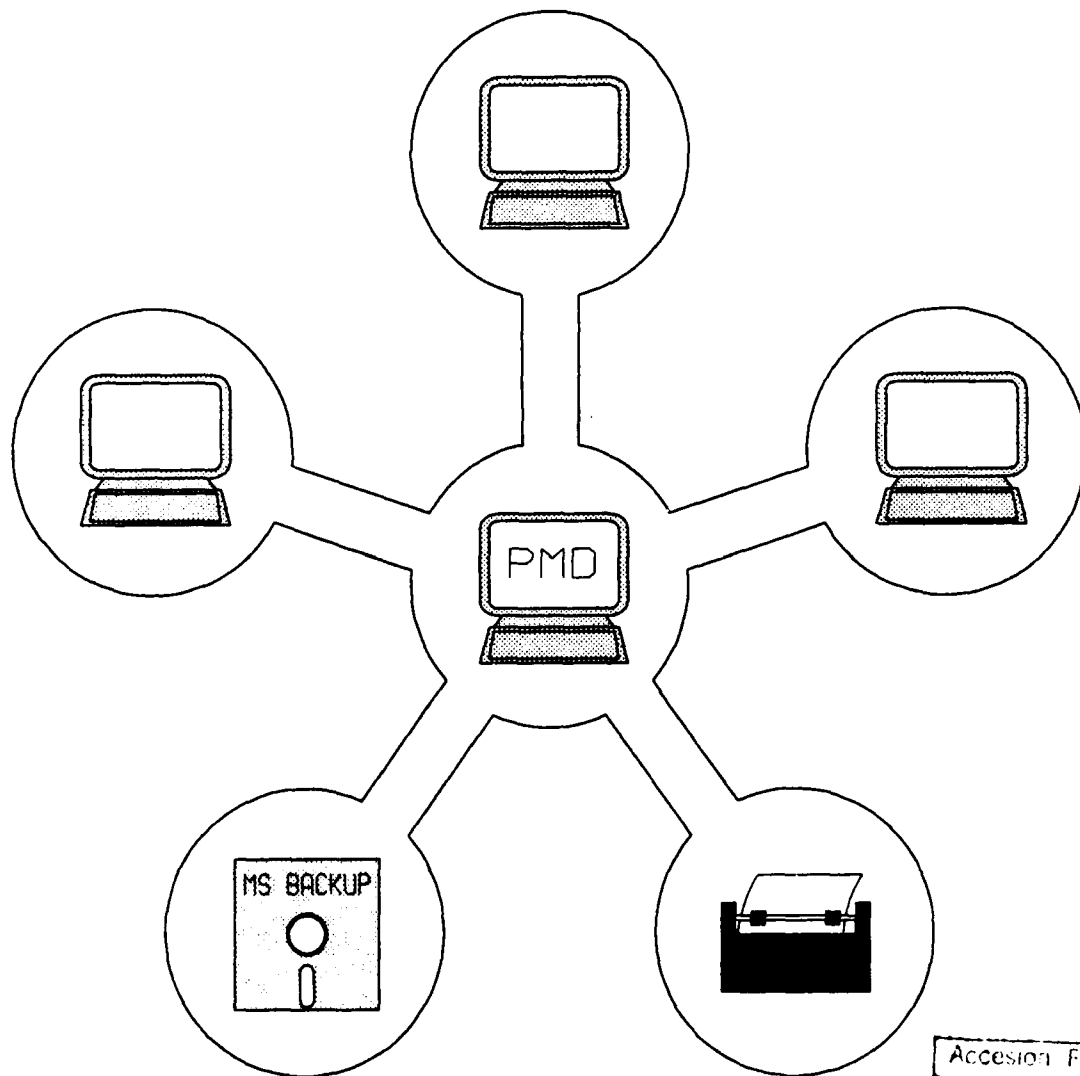
Under
Contract Number DAAK70-84-D-0053
Task Order 0033

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SCIENCE APPLICATIONS INTERNATIONAL CORPORATION
Military Operations Analysis Division
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McLean, Virginia 22102



PROGRAM MANAGEMENT AND MONITORING DATA BASE



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DATA BASE USER'S MANUAL
PROGRAM MANAGEMENT AND MONITORING DATA BASE
R:BASE SYSTEM V

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1 DESCRIPTION.....	D-1
2 DATA BASE RANGE.....	D-1
3 DATA BASE DEVELOPMENT.....	D-2
4 DATA BASE QUERY CAPABILITIES.....	D-2
5 > HARDWARE AND SOFTWARE REQUIREMENTS.....	D-3
6 INSTALLATION.....	D-3
7 BACKING UP THE DATA BASE.....	D-7
8 USING MS, THE PROGRAM MANAGEMENT AND MONITORING DATA BASE QUERY PROGRAM.....	D-8
9 EXITING MS.....	D-10
10 RUNNING MSUPDATE.....	D-11
11 OPERATING MSDEL.PRO.....	D-13

<u>ENCLOSURES</u>	<u>PAGE</u>
1 TEXT DATA FIELDS USED BY MS.....	D-1-1
2 STRUCTURE OF THE PROGRAM MANAGEMENT AND MONITORING DATA BASE.....	D-2-1
3 EXAMPLES OF A BATCH FILES TO RUN FROM MS-DOS.....	D-3-1
4 CREATING THE HTPM ASCII DATA FILE.....	D-4-1

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PROGRAM MANAGEMENT AND MONITORING DATA BASE
US ARMY BELVOIR RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
LOGISTICS SUPPORT DIRECTORATE

MAINTAINED BY:
PROGRAM MANAGEMENT DIVISION, LOGISTICS SUPPORT DIRECTORATE

RECOMMENDATION:

One installation of the data base should serve as the "master" for file maintenance purposes. The most up to date, official data will be contained within this master data base. To allow multiple users, it is necessary to make copies of the master data base files which could be distributed periodically to "remote" stations.

TERMS:

MASTER STATION: *The computer where the master data base files are maintained.*

REMOTE STATION: *A computer where a copy of the data base files is distributed.*

1. DESCRIPTION

The Program Management and Monitoring Data Base is a data base for monitoring the progress of ongoing programs within the Logistics Support Directorate of the US Army Belvoir Research, Development and Engineering Center. Through the use of the Query System of the Program Management and Monitoring Data Base, the data base is accessible to persons unfamiliar with R:BASE System V or the data base structure.

The total system is made up of two parts:

- Program Management and Monitoring Data Base and
- Program Management and Monitoring Data Base Query System (MS).

2. DATA BASE RANGE

The Program Management and Monitoring Data Base contains data of ongoing programs within the Logistics Support Directorate of the US Army Belvoir Research, Development and Engineering Center (BELVOIR). The data were obtained from program schedules developed in Harvard Total Project Manager II (HTPM II). For each project within the data base the following information has been gathered:

- Project Name
- Acronym
- Proponent School
- PMS Number
- Brief Description of the Project
- Project Engineer's Name, Office Symbol, and Telephone Number
- Type of Program
- Type of Funding
- Funding Level for the Current Fiscal Year
- HTPM Program Schedule (Yes/No)
- Date the HTPM Schedule was Last Updated
- HTPM Schedule Data

3. DATA BASE DEVELOPMENT

The Program Management and Monitoring Data Base and query programs were developed using R:BASE System V, selected as the standard data base software within the Logistics Support Directorate of BELVOIR.

The program schedules were developed using HTPM, selected as the Logistics Support Directorate's standard project management software. The HTPM schedule data were then translated to American National Standard Code for Information Interchange (ASCII) delimited files, a format compatible with R:BASE System V. The ASCII delimited file is a standard format used for transferring data between information processing systems.

4. DATA BASE QUERY CAPABILITIES

The menu-driven querying and reporting system (MS) developed for the Program Management and Monitoring Data Base, provides a limited querying capability to users unfamiliar with the data base or the operation of R:BASE System V. The following types of queries may be answered using the query program:

- Find the Project Management System (PMS) number of a particular project.
- For a particular PMS number, display completed tasks and milestones.
- For a particular PMS number, display tasks and milestones which are not applicable.
- For a particular PMS number, display tasks and milestones which are still to be completed.
- For a particular PMS number, flag tasks which are behind schedule.
- For a particular PMS number, flag milestones which have been missed.
- For a particular PMS number, flag milestones occurring between two dates.

- For a particular PMS number, report the current status of the Army Management Milestone System (AMMS) and BELVOIR milestones.
- Display a list of programs which are behind schedule.
- Display the dates when each schedule was updated.
- List PMS numbers for programs whose names contain STRING.
- Across all programs which milestones are expected between two dates.
- Which projects are funded between some minimum and maximum dollar values this fiscal year?

MS will find the programs meeting the condition chosen. You are given the option of where the output is to be written, either to the screen, a data file, or the printer.

The queries are divided into two categories: (1) analyses of individual programs by PMS number, or (2) analyses across all programs.

5. HARDWARE AND SOFTWARE REQUIREMENTS

MS is a collection of R:BASE System V application programs which work with the Program Management and Monitoring Data Base. In order to operate MS, you must have a copy of R:BASE System V and the Program Management and Monitoring Data Base. R:BASE requires an IBM PC, PC-XT, PC-AT, or PC-compatible computer with 540 kilobytes (Kb) of random access memory (RAM), a fixed hard disk, and the Microsoft Disk Operating System (MS-DOS) version 3.1. The projects presently in the data base require 900 Kb of disk space. The data base will occupy more space as projects are added. A printer is required if you wish to use the printed report capability of MS.

6. INSTALLATION

The Program Management and Monitoring Data Base and MS are contained on four diskettes, three for the data base and one for the MS program files. The following is performed in MS-DOS.

- (1) Install R:BASE System V. If R:BASE is not already installed on your disk, follow the instructions supplied with R:BASE to install it.
- (2) Configured the Stations. The configurations of the Master Station and the Remote Stations are described below:

(a) Master Station. Two MS-DOS fixed disk directories are required for the Master Station of the Program Management and Monitoring Data Base. It is recommended that these directories be dedicated to the data base. The first directory, **MS**, will contain the Program Management and Monitoring Data base and MS application files. The second directory is for the HTPM data files in ASCII format; this directory can be installed using either through MS-DOS or the program MSCONFIG. The use of the MS-DOS command **MD** to create the MS directory on your fixed hard disk is described below:

```
C> CD\  
C> MD MS (This is the required name of the directory.)
```

(Consult your MS-DOS manual.)

MSCONFIG. This program creates the HTPM ASCII data file directory and develops a command file and a batch file for **MSUPDATE**. MSCONFIG must be run in order to run the MSUPDATE. To initiate MSCONFIG place the applications disk in drive A: and follow the steps below:

```
C> CD\MS  
C> A:MSCONFIG
```

This routine will ask for the name of the directory containing the R:Base System V command files and the name of the directory which will hold the HTPM data files. The first screen is shown below:

PROGRAM MANAGEMENT AND MONITORING DATA BASE
US ARMY BELVOIR RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
LOGISTICS SUPPORT DIRECTORATE

MAINTAINED BY:
PROGRAM MANAGEMENT DIVISION, LOGISTICS SUPPORT DIRECTORATE

***** PRESS <BREAK> OR Ctrl-C TO EXIT *****

ENTER THE NAME OF THE RBASE PROGRAM DIRECTORY

EXAMPLE : C:\RBFILES

DIR --> [drive:][\path\]dirname

At the prompt enter the name of the directory containing the R:BASE System V command file.

MSCONFIG will now ask whether a directory for the HTPM ASCII data files currently exists. If such a directory does exist, you will be asked to enter its path and name. For example, in C:\MS\FILES, FILES is a sub-directory of directory MS. However, if the directory does not exist, MCONFIG will create it. You will be asked to enter the path and name of the new HTPM ASCII data file directory. If you do not enter a path, the new directory will be created as a sub-directory of MS. The screen is shown below

PROGRAM MANAGEMENT AND MONITORING DATA BASE
US ARMY BELVOIR RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
LOGISTICS SUPPORT DIRECTORATE

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***** PRESS <BREAK> OR Ctrl-C TO EXIT *****

ENTER THE DIRECTORY NAME AND PATH.

EXAMPLE : MSASCII.FIL

DIR --> [drive:][\path\]dirname

(b) Remote Stations. One directory (named MS) is required for the Program Management and Monitoring Data Base and MS program files. It is recommended that the MS directory be dedicated to the implementation of the data base. Use the MS-DOS command MD to create the directory on your fixed hard disk. The following commands will create the directory:

C> CD\
C> MD MS (This is the required name of the directory.)

(If you have any questions see your MS-DOS manual.)

(3) Install the Application Programs. To copy the MS program files (MS*.*) from the program diskette onto your fixed disk, place the disk with the program files in drive A and enter the following commands:

C> CD\MS
C> A:MSINST

(4) Install the Data Base. The Program Management and Monitoring Data Base has been loaded onto four diskettes using the MS-DOS BACKUP

command; therefore, the MS-DOS RESTORE command is required to load the data base onto your fixed disk. The procedure is as follows:

```
C> CD\MS  
C> [drive:][\path\]RESTORE A: C:*.*
```

NOTE: The phrase, "[drive:][\path\]," in the above command refers the drive and directory where your MS-DOS command files are located. For example, if your MS-DOS command files are located on drive C: and in directory \MS-DOS, the above command would be entered as: C:\MS-DOS\RESTORE A: C:*.*. This will be the same for other examples in this handbook.

Individually insert the diskettes which will hold the data base into drive A: and press a key, as directed. It is important that the diskettes are inserted in the proper sequence. For additional assistance refer to your MS-DOS manual.

7. BACKING UP THE DATA BASE

It is recommended that one or more backups of the latest version of the data base be maintained. Furthermore, since one installation of the data base is to serve as the Master Station for maintenance purposes, it is necessary to make copies of the data base files to be distributed periodically to Remote Stations. The following procedures can be used to make backup copies of the data base.

Use the MS-DOS BACKUP command to copy the data base files onto diskettes. Obtain enough formatted diskettes to hold the all the data base files. (CAUTION: Any files currently on these diskettes will be destroyed by the BACKUP command.) If you must format any diskettes, perform the procedure below:

```
C> [drive:][\path\]FORMAT A:
```

Respond as directed by the prompts. Refer to your MS-DOS manual to answer

any questions about the format command.

To backup the data base use the following MS-DOS commands:

```
C> CD\MS
C> [drive:][\path\]BACKUP C:MS*.RBF A:
```

Respond to the prompts to insert the diskettes into drive A: and press a key to continue. Be sure to note on the backup diskettes which is the first, second, third, etc. Refer to your MS-DOS manual to answer any further questions.

8. USING MS, THE PROGRAM MANAGEMENT AND MONITORING DATA BASE QUERY PROGRAM

a. STARTING PROJECTS. The query option is accessed from within R:BASE System V. Before initiating R:BASE, change directories so that the current directory is MS and set the path to the drive and directory containing R:BASE. At this time, you can initiate R:BASE.

```
C> CD\MS
C> PATH C:\RBFILS (if RBFILS is not the name of the directory where
                  the R:BASE system is located, then enter the correct
                  directory.)
C> RBASE
```

After a few moments, the R:BASE introductory screen, with the R:BASE logo, will appear. This will be followed by the R:BASE main menu, (see below) with option (1), "R:BASE command mode", highlighted. Press [enter] to select this option. At the "R" prompt type RUN MS [enter].

R:BASE System V
Copyright (C) 1983,1984,1985,1986 by Microrim, Inc. (Ver. 1.00 PC-DOS)

R:BASE Main Menu	
(1)	R:BASE command mode
(2)	HELP for using R:BASE
(3)	Prompt By Example
(4)	Exit

R>RUN MS

The MS introductory menu will then appear. Refer below.

PROGRAM MANAGEMENT AND MONITORING DATA BASE
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LOGISTICS SUPPORT DIRECTORATE

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Program Management and Program Schedule Analysis

- (1) Analyses of individual programs (PMS Numbers).
- (2) Analyses across the entire range of programs.
- (3) Exit.

MENU OPTION --->

b. PERFORMING A QUERY WITH MS. The PROGRAM MANAGEMENT AND PROGRAM SCHEDULE ANALYSIS menu links the individual program analysis and multiple program analysis together. At the start of the session, and after you exit each analysis group, control is returned to this menu. The menu contains three options, one entry for each query type, and the option to Exit which ends the program and returns you to the R:BASE command mode. Select the entry matching the query you wish to submit and press [enter].

Specific criteria for each query are entered through the following menus:

Option [1] from the Program Management and Program Schedule Analysis menu:

Conduct Analyses of Individual Programs (PMS Numbers)

- (1) Find PMS# for a project.
- (2) Display completed tasks and milestones.
- (3) Display tasks and milestones which are not applicable.
- (4) Display tasks/milestones which are still to be completed.
- (5) Flag tasks which are behind schedule.
- (6) Flag milestones which have been missed.
- (7) Flag milestones occurring between DATE1 and DATE2.
- (8) Report the current status of AMMS and BELVOIR milestones.
- (9) Return to the Main menu.

MENU OPTION --->

Option [2] from the Program Management and Program Schedule Analysis menu:

Conduct Analyses Across All Programs

- (1) Display a list of programs which are behind schedule.
- (2) Display the dates when each schedule was updated.
- (3) Which programs have planned costs of X to Y dollars?
- (4) List PMS numbers for programs whose names contain STRING.
- (5) Which milestones/tasks are expected between DATE1 and DATE2.
- (6) Return to the Main menu.

MENU OPTION --->

After you have selected an option from either of the menus above, a form will appear asking for the destination of your output. If you are in the individual program analysis menu there will also be a form for the PMS number of the project in which you are interested.

9. EXITING MS

To exit MS, select option 3, exit, from the Program Management and Program Schedule Analysis menu. All menus can be exited by either entering the number of the last option or hitting the escape key <Esc>. The forms may also be exited by hitting <Esc>. Now that you are out of MS you can either use the R:BASE commands to examine the data base or exit R:BASE all together. If you would like to exit R:BASE, just type EXIT at the "R" prompt as shown below.

```
R> EXIT
```

This will return you to the MS-DOS operating environment.

10. RUNNING MSUPDATE

This routine will be run by the person who maintains the master data base, to be called the operator. Before this routine can be implemented, the operator must prepare the HTPM ASCII data file directory. The preparation of the directory will require the copying of the HTPM ASCII data files to the HTPM ASCII data file directory. This can be accomplished by placing the data diskettes individually into drive A: (it is assumed that the data will be submitted on floppy diskettes) and using the MS-DOS copy command. Once all the files have been copied to the HTPM ASCII data file directory, the operator can enter the following commands at the MS-DOS prompt.

```
C> CD\MS  
C> MSUPDATE
```

This routine may take a long period of time. If there are a lot of programs to be loaded, you may want to let it run over night. After the

routine has finished loading the data into the data base, the following prompt will appear on the screen:

Begin adding data to the data base.

Records loaded:

Database : 500 Exception : 0

Finished adding data to the database.

Press any key to continue

Press any key as directed by the prompt. Following this the screen depicted below will appear. This screen will appear with (1) highlighted, change the high light to (8) by either using the arrow keys or by entering an 8.

```

      Import Menu
(1)  ASCII delimited
(2)  ASCII fixed field
(3)  WKS, WK1, WRK (Lotus 1-2-3 or Symphony)
(4)  DBF (dBASE II or dBASE III)
(5)  pfs:file
(6)  DIF (Visicalc or other program)
(7)  SYLK (Multiplan or other program)
(8)  Return to the FileGateway Main Menu

```

[Ctrl-Break] Abort [F3] Display [F10] Help [Shift-F6] Options
PLAYBACK ENDED

Now hit <Enter>. The following menu will now appear:

FileGateway
Copyright (C) 1983,1984,1985,1986 by Microrim, Inc. (Ver. 1.00 PC-DOS)

```

      FileGateway Main Menu
(1)  Import data from a file
(2)  Export data to a file
(3)  Help for using FileGateway
(4)  Exit

```

Choose option 4, Exit, to exit FILEGATEWAY. The data base has now been updated.

NOTE: This routine makes a backup copy of the data base before proceeding. The backup files are called MS1.BAK, MS2.BAK, and MS3.BAK.

11. OPERATING MSDEL.PRO

This routine is used to delete a program from the data base. This routine will also be located with the Master Station. This routine will ask for the PMS number of the program to be deleted. It will then display the name of the program and ask for confirmation. When confirmation is received, the program is removed from the data base. To run this routine enter the following at the "R" prompt:

R> RUN MSDEL.PRO

ENCLOSURE 1: TEXT DATA FIELDS USED BY MS

The following table contains the name of each program in the data base and its associated PMS number sorted by the program name.

<u>PMS NUMBER</u>	<u>PROGRAM NAME</u>
28	TACTICAL ELECTRICAL POWER - ENERGY CONVERSION
29	PULSE POWER
60	250,000 BTUH MULTIFUEL ARMY SPACE HEATER
63	WATER SUPPLY/TECH BASE
65	COMBAT VEHICLE ENVIRONMENTAL SUPPORT SYSTEM
66	INTEGRATED CHEMICAL FILTER AND ENVIRONMENTAL CONTROL EQUIPMENT
68	COMMERCIAL ECUS
73	INTRA-INSTALLATION AMMUNITION TRANSPORTER
74	ROUGH TERRAIN CONTAINER STRADDLE TRUCK
87	185 TON SCHNABEL RAILCAR
88	TRIDENT II BOXCAR
93	LAB, PETROLEUM, SEMI-TRAILER
94	FILTER SEP TEST
97	LIGHTER, AMPHIBIAN, HEAVY-LIFT
110	SLINGS
142	3KW STIRLING
143	2KVA POWER CONDITIONER
144	6KVA POWER CONDITIONER
146	SYSTEMS AND TECHNICAL PERFORMANCE ASSESSMENT
148	5 AND 10KW SOUND SUPPRESSED GENERATOR
157	CUSTOMER AIR FORCE REMOTE SITE POWER PLANTS
159	M113 ELECTRIC DRIVE PROJECT
172	AUTHORIZED STOCKAGE LIST (ASL) VAN
206	ENERGY SYSTEM - TACTICAL ELECTRIC POWER
222	FUEL HANDLING EQUIPMENT TECHNOLOGY IMPROVED REFUELING SYSTEM
228	10KW 28V AVIATION DC GENERATOR SET
253	ARMY SECURE LIGHTING PROGRAM
371	DISTRIBUTION/ILLUMINATION SET, ELECTRICAL

<u>PMS NUMBER</u>	<u>PROGRAM NAME</u>
372	ENVIRONMENTAL CONTROL/CB PROTECTION
392	AUTO AMMO RECONFIGURATION MODULE
396	WATER QUALITY ANALYSIS UNIT-PURIFICATION
403	UNIT BASIC LOAD-UPLOAD EQUIPMENT
421	AVIATION RAPID REFUELING EQUIPMENT SYSTEM (AAFARS & HEMMT)
427	3000 GPH REVERSE OSMOSIS WATER PURIFICATION UNIT (ROWPU)
430	ACTIVE-INERT MISSILE (AIM) ON 140-T FLAT CAR
461	VEHICLE UNDER-THE-HOOD POWER
531	TOTAL ENVIRONMENTAL CONTROL SYSTEM
553	SWAPDOP PUMPS 600 GPH HOSELINE 800 GPH MAINLINE 1250 GPH FLOOD A
563	MACI FIRE TRUCK (M158)
566	ERDLATORS
606	REPAIR OUTFIT FOR THE REPAIR OF COLLAPSIBLE TANKS AND DRUMS
608	ARMY WATERCRAFT COMMUNICATION, ELECTRONIC AND NAVIGATION EQUIPMEN
615	ELECTRIC PNEUMATIC TIRED FORKLIFT TRUCK
617	TACTICAL WATER DISTRIBUTION SYSTEM
643	ARCTIC FUEL DISPENSING EQUIPMENT (AFARE AND AFSSP)
645	AUTOMATED PIPELINE EQUIPMENT SYSTEM
648	PUMPS 350 GPM
649	TANKS, FABRIC, COLLAPSIBLE: 3K, 10K, 20K, 50K GALLON PETROLEUM
650	LIGHTWEIGHT COLLAPSIBLE PILLOW TANK (LCPT)
652	TESTING KIT, PETROLEUM: AVIATION FUEL CONTAMINATION (M730)
665	TANK, FABRIC, COLLAPSIBLE 5000 BBL, PETROLEUM
667	WATER QUALITY ANALYSIS SET: PREVENTIVE MEDICINE (R402)
685	20KW REGENCY NET POWER UNIT
715	LIGHTWEIGHT EXPANDABLE TOPHANDLER
721	SELF DEPLOYABLE MATERIALS HANDLING EQUIPMENT
722	UNIVERSAL SELF-DEPLOYABLE CARGO HANDLER
740	15 AND 30 KW NOISE KITS
789	MHE LOGISTIC APPLICATION OF ROBOTICS
793	ELECTRIC GUN (PULSE POWER)
798	FIELD HOSPITAL UNIT SYSTEM
821	MODULAR BASE PETROLEUM LABORATORY

<u>PMS NUMBER</u>	<u>PROGRAM NAME</u>
832	HI TECH REVERSE OSMOSIS WATER PURIFICATION UNIT (ROWPU)
838	SMALL TUG
839	LARGE TUG
841	ELEVATED CAUSEWAY
999	GRAVES REGISTRATION LITTER RACKING SYSTEM

<u>SCHOOL</u>	<u>DATA BASE ENTRY</u>
US Army Signal Center and School	ACS
US Army Armor Center and School	ARMC
US Aviation Center and Fort Rucker	AVNC
US Army Aviation Logistics and Transportation School	AVNLOG
US Army Combined Arms Center and Development Activity	CACDA
Customer	CUSTOMER
US Army Engineer School	ENS
US Army Infantry School	IS
US Army Ordnance Missile Munitions Center and School	OMMCS
US Army Quartermaster School	QMS
US Army Training and Doctrine Command	TRADOC
US Army Transportation School	TRANS
US Army Ordnance Center and School	ORDCS

<u>PROGRAM TYPE</u>	<u>DATA BASE ENTRY</u>
Contract Support	CNTR SUP
Customer	CUSTOMER
Engineering Support	ENGR SUP
Nondevelopment Item	NDI
Product Improvement Program	PIP
Production Support	PRODUCTN
Research, Development, Test, and Evaluation	RDTE
Technology Base Research	TECH BSE
Value Engineering	VE

PROJECT ENGINEER

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ENCLOSURE 2: STRUCTURE OF THE PROGRAM MANAGEMENT AND MONITORING DATA BASE

TABLES IN THE DATA BASE MS:

AMMS-DAT The table containing the HTPM data for the AMMS and BELVOIR milestones in schedules previously developed by the Project Engineers. At each update the AMMS and BELVOIR milestones will be transferred from the ROADMAPS table. (Page D-2-4)

NOTE: The upload procedure will replace the milestones in the AMMS-DAT table which has the same code number and transfer all AMMS and BELVOIR milestones found in ROADMAPS table.

ASAP The table containing the description of tasks and milestones used in the standard Army Streamlined Acquisition Process (ASAP) templates. (Page D-2-2)

FORMS The table of forms used by the data base.

INPUT The table used for inputting the HTPM schedules when the data is in -DIF format.

NDI The table containing the description of tasks and milestones used in the standard Nondevelopment Item (NDI) templates. (Page D-2-2)

ORPHANS This table contains the names of the files within the HTPM ASCII data file directory which are not associated with any programs within the data base. (Page D-2-4)

PROGRAMS The table containing the background data for the programs within the data base. This table may include programs for which there is not a HTPM program schedule loaded, therefore this table provides a space holder for programs to be added. (Page D-2-2)

R&D The table containing the description of tasks and milestones used in the standard Research, Development, Test, and Evaluation (RDTE) templates. (Page D-2-2)

REPORTS The table of reports used by the data base.

ROADMAPS The table containing the schedule data which has been loaded from the HTPM II schedules developed by the Project Engineers. (Page D-2-3)

TABLES: ASAP, NDI, R&D

COLUMN NUMBER	NAME	TYPE	DESCRIPTION
1	TASKNAME	TEXT	The name of the node from the standard schedules (i.e., ASAP, NDI, R&D).
2	SCHEDULE	TEXT	The name of the HTPM project schedule that this task belongs.
3	CODE#	TEXT	The code associated with the task or milestone (i.e., AMMS, BELVOIR).
4	RESPONSI	TEXT	The organization/person responsible for the completion of the task or milestone.
5	WORK_DAY	DOUBLE	The planned duration of the task.
6	DESCRPTN	TEXT	Description field from the node in the standard schedule.
7	PROJ-NUM	INTEGER	The level of the schedule within each acquisition type.

TABLE: PROGRAMS

COLUMN NUMBER	NAME	TYPE	DESCRIPTION
1	ITEM	TEXT	The name of the program.
2	PE	TEXT	The name of the Project Engineer.
3	ACRONYM	TEXT	The program acronym.
4	SCHOOL	TEXT	The proponent School.
5	PMS#	INTEGER	The unique program identification number.
6	DESCRIPT	TEXT	A brief description of the program.
7	OFF.SYM	TEXT	The office symbol of the Project Engineer.
8	PE.PHONE	INTEGER	The Project Engineer's office phone number.
9	TYPEPROG	TEXT	The type of program (i.e., RDTE, NDI).
10	TYPEFUND	TEXT	The type of funding (i.e., CUSTOMER, OMA)
11	FNDLEVEL	CURRENCY	The level of funding for this project during this fiscal year.
12	MEMO	TEXT	Notes about this program.
13	MS-CHRT	TEXT	Is there a milestone chart, [Y]es or [N]o?
14	UPDATED	DATE	The date when the milestone chart was last updated.
15	IN-DB	TEXT	Is this milestone chart in the data base, [Y]es or [N]o?
16	SCRATCH	TEXT	A scratch field used during queries as a flag.

TABLE: ROADMAPS

COLUMN NUMBER	NAME	TYPE	DESCRIPTION
1	PMS#	INTEGER	The program identification number.
2	TASKNAME	TEXT	The name of the node from the schedule.
3	DESCRIBE	TEXT	Description field from the node in the schedule.
4	PLAN-DUR	REAL	The planned duration of the task in work days.
5	ACT-ST	DATE	The actual start date of the task, if the task is being performed.
6	ACT-FN	DATE	The actual finish date of the task, if the task has been completed.
7	ACT-DUR	REAL	The actual number of days it took to complete this task.
8	EARLY-ST	DATE	The earliest date that this task can begin.
9	EARLY-FN	DATE	The earliest date that this task can be completed.
10	LATE-ST	DATE	The latest date that this task can begin.
11	LATE-FN	DATE	This is the latest that this task can be completed and maintain the schedule.
12	PLAN-ST	DATE	The date that the Project Engineer plans to start this task.
13	PLAN-FN	DATE	The date that this task will be completed based upon the planned start date and the planned duration.
14	COMPLETE	REAL	The completion percentage.
15	SLACK	REAL	The number of days available before the task becomes critical. (Tasks on the critical path have 0 slack.)
16	CODE#	TEXT	The code associated with the task or milestone (i.e., AMMS, BELVOIR)
17	RESPONSI	TEXT	The organization/person responsible for the completion of the task.
18	SCHEDULE	TEXT	The name of the HTPM project schedule that this task belongs.
19	SCRATCH	TEXT	A scratch field used during queries as a flag.
20	SCRATCH2	TEXT	A scratch field used during queries as a flag.
21	X	REAL	A scratch field used during queries as a computation field.
22	Y	REAL	A scratch field used during queries as a computation field.
23	Z	REAL	A scratch field used during queries as a computation field.

TABLE: AMMS-DAT

COLUMN NUMBER	NAME	TYPE	DESCRIPTION
1	TASKNAME	TEXT	The name of the node from the schedule.
2	DESCRIBE	TEXT	Description field from the node in the schedule.
3	EARLY-ST	DATE	The earliest date that this task can begin.
4	EARLY-FN	DATE	The earliest date that this task can be completed.
5	LATE-ST	DATE	The latest date that this task can begin.
6	LATE-FN	DATE	This is the latest that this task can be completed and maintain the schedule.
7	PLAN-ST	DATE	The date that the Project Engineer plans to start this task.
8	PLAN-FN	DATE	The date that this task will be completed based upon the planned start date and the planned duration.
9	SLACK	REAL	The number of days available before the task becomes critical. (Tasks on the critical path have 0 slack.)
10	COMPLETE	REAL	The completion percentage.
11	CODE#	TEXT	The code associated with the task or milestone (i.e., AMMS, BELVOIR)
12	RESPONSI	TEXT	The organization/person responsible for the completion of the task.
13	SCHEDULE	TEXT	The name of the HTPM project schedule that this task belongs.
14	PMS#	INTEGER	The program identification number.
15	SCRATCH	TEXT	A scratch field used during queries as a flag.

TABLE: ORPHANS

COLUMN NUMBER	NAME	TYPE	DESCRIPTION
1	FILENAME	TEXT	The name of the HTPM ASCII files found in the HTPM ASCII data directory, for which either the project has not been entered into the data base or the file had an improper name.
2	PMS#	INTEGER	This field is the program identification number and has been left open for the data base operator's use.

ENCLOSURE 3: EXAMPLES OF BATCH FILES TO RUN FROM MS-DOS

EXAMPLE 1: A BATCH FILE WHICH WILL INITIATE PROGRAM MANAGEMENT AND MONITORING DATA BASE QUERY AND REPORTING SYSTEM

```
REM *****
REM This is a SPECIAL example batch file for running MS. This batch
REM file calls R:BASE System V and initiates operation of the
REM application MS.PRO. SAIC, 15-SEP-87
REM *****
REM 1. The REM statements are comments for the person editing this
REM batch file and not actual MS-DOS commands.
REM
REM 2. In the following lines [drive1:] and [path1:] refer to the drive
REM and path where the R:BASE files are located and [drive2:] and
REM [path2:] refers to the drive and path where data base is
REM located.
REM
REM 3. To tailor this batch file to your system, replace the [drive:]
REM and [\path\] which those associated with your system.
REM *****
REM
REM (If RBFILS is not the correct name of the directory where your
REM R:BASE system is located, then enter the correct directory.
REM EXAMPLE: C:\DATABASE\RBFILS or C:\RBASE)
CD [drive1:][\path1\RBFILS
[drive2:]
CD [drive2:]\MS
PATH [drive1:][\path1\RBFILS
[drive1:][\path1\RBFILS\RBASE -P MS
REM The following line returns the path to the MS-DOS directory
REM on your hard disk.
[drive:][\path\MS-DOS
```


ENCLOSURE 4: CREATING THE HTPM ASCII DATA FILE

1. Start HTPM II in the usual method. The main menu screen will appear as follows:

HARVARD Total Project Manager II	
>1. Create a project	5. Get/Save/Remove
2. Edit a project	6. Resources
3. Create a calendar	7. Reports
4. Edit a calendar	8. Setup
E = Exit	

FIGURE D-4-1. Main Menu Screen.

Choose option 5, Get/Save/Remove, to get your project. (Some familiarity with HTPM II is assumed.)

2. Return to the main menu and choose option 7, Reports.
3. The Reports menu screen will now appear. Using the arrow pad on your keyboard, move down the Text Reports column to the "Task & Milestone List". At this point, hit function key F2, Options.
4. A pull down menu will appear with two options:
 1. Run report
 2. Format report

Choose option 2, "Format report". The "Order columns for Task & Milestone List" screen will appear. The order of the fields in the ASCII file is critical; the ordering ensures that the correct field is

loaded in the correct column in the data base. The proper ordering is listed below in Figure D-4-2:

1. Description	9. Latest finish
2. Planned duration	10. Early constraint
3. Actual start	11. Late constraint
4. Actual finish	12. % Complete
5. Actual duration	13. Slack
6. Earliest start	14. Code
7. Earliest finish	15. Responsible
8. Latest start	16. Project name

FIGURE D-4-2. Field Ordering.

To enter the proper field order number, move your cursor, using the arrow pad, to the field you want to change and type in the number. Be sure to check that the order is correct and that there are no duplicate entries. An example of the screen is provided below in Figure D-4-3.

F1-Help
Options

Order columns for Task & Milestone List

1 Description Start date Finish date Planned start Planned finish 2 Planned duration Planned work 3 Actual start 4 Actual finish 5 Actual duration Actual work Baseline start Baseline finish	Baseline duration Baseline work 6 Earliest start 7 Earliest finish 8 Latest start 9 Latest finish 10 Early constraint 11 Late constraint 12 % Complete 13 Slack 14 Code 15 Responsible 16 Project name	Pln resource cost Pln other cost Pln total cost Act resource cost Act other cost Act total cost Prj resource cost Prj other cost Prj total cost Base resource cost Base other cost Base total cost
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Esc-Cancel
F10-Confirm

Reports

FIGURE D-4-3. Order Columns for Task & Milestone List

When all changes have been completed, hit function key F10, "Confirm". The next screen to appear will ask for the configuration of the output data. It will not be necessary to edit these screens. Press F10 until you are returned to Reports main screen (hit F10 twice).

5. Press function key F2. The pull down menu described in step 4 will appear. Choose option 1, "Run report". The "Text report options" block will appear on the screen. Three options will be entered: "Filename", "Print to", and "Pause between pages". For "Filename", enter the PMS number of your project; for "Print to", use the arrow keys to toggle the shading to "Disk File"; and, for "Pause between pages", use the arrow keys to toggle the shading to "No". Now enter F10, "Confirm". See Figure D-4-4.

HTPM will now ask what type of a file to output, "Choose file type". Using your arrow pad, move your cursor to the final option "Delimited ASCII" and press F10. See Figure D-4-5.

F1-Help Options

Text reports	Graphic reports
Text report options	
Header:	
Footer:	
Filename: 999	
Print to: Printer	Disk file
Control codes:	
Pause between pages: Yes >No	
Esc-Cancel	F10-Confirm

Reports

FIGURE D-4-4. Test Report Options.
D-4-3

Text report	Choose file type
Header:	Print file
Footer:	Lotus 1-2-3 file Ver 1A
Filename:9	Lotus 1-2-3 file Ver 2
Print to:	dBASE II
Control codes:	dBASE III
	>Delimited ASCII
	Esc-Cancel F10-Confirm
Pause between pages: Yes >No	
Esc-Cancel	F10-Confirm

Reports

FIGURE D-4-5. Choose File Type.

- HTPM will inform you that it is preparing the data and writing it to the disk file. When this is complete, you will be returned to the Reports main screen. At this point, hit <Esc> to move you back to the HTPM main menu. Now you can exit: however, if you made any changes to the schedule you should save it, then exit. To exit from the HTPM main menu, enter "E".

END

12-87

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